



United States Department of Energy
Office of Public Affairs
Washington, DC 20585

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Monday, April 21, 2008

**DOE Selects Project for up to \$7 Million of Federal Funding to
Modernize Hawaii's Energy Infrastructure**

*University of Hawaii Team to Install Distribution Management System at
Maui Substation*

Honolulu, Hawaii— U.S. Department of Energy (DOE) Assistant Secretary for Electricity Delivery and Energy Reliability (OE) Kevin Kolevar announced the Department's plans to invest up to \$7 million over three years in a demonstration project led by the University of Hawaii's Natural Energy Institute to increase efficiency in the State's energy infrastructure. Assistant Secretary Kolevar was joined by Governor Linda Lingle in making the announcement today in Honolulu. The project, totaling \$15 million, is one of nine demonstration projects competitively selected by DOE under the Renewable and Distributed Systems Integration (RDSI) solicitation to modernize the Nation's electricity grid. DOE plans to invest up to \$50 million in total over five years (Fiscal Years 2008 - 2012), subject to appropriations from Congress, in these projects that aim to reduce peak load electricity demand by at least 15 percent at distribution feeders—the power lines delivering electricity to consumers.

"With its diverse, indigenous energy resources, the State of Hawaii serves as an ideal candidate to partner with the federal government to test and deploy an array of renewable sources of generation and interconnection technologies to keep reliable supplies of electricity flowing to the American people," said Assistant Secretary Kolevar. "This innovative project furthers the Bush Administration's efforts to develop and deploy advanced technologies and renewable energy sources to increase energy efficiency to meet our Nation's growing energy needs and enhance our national security."

The project team will develop and demonstrate a control and energy management distribution system using responsive loads, distributed generation technologies, and energy storage capacity to optimize the distribution system. This cutting-edge distribution management system will address energy reliability concerns—such as electricity grid congestion, energy reserves, and intermittent power supplies—in order to improve the quality and reliability of Hawaii's energy infrastructure. The technology will be deployed at the Maui Lani Substation in Maui, where it is expected to reduce the distribution

system's peak grid energy draw by at least 15 percent, and will operate in conjunction with other energy resources in the Maui grid to provide ramp-rate relief for the existing 30-MW Kaheawa wind farm—which represents as much as 30 percent of the island's generation during low-load conditions.

The distribution management system builds on similar power distribution research conducted in Hawaii over the past two years, and will be developed at General Electric's Global Research Center and tested on a "real-life" distribution system at the National Technology Certification Center in Playas, New Mexico. The technology will subsequently be deployed at the Maui Lani Substation in Maui. The University's team includes General Electric, Hawaiian Electric Company, Inc., Maui Electric Company, Columbus Electric Cooperative, the New Mexico Institute of Mining and Technology, Sentech, and UPC Wind. RDSI focuses on integrating renewable energy, distributed generation, energy storage, thermally activated technologies, and demand response into the electric distribution and transmission system. This integration is aimed toward managing peak loads, offering new value-added services such as differentiated power quality to meet individual user needs, and enhancing asset use, as part of the Department's ongoing efforts to increase the efficiency and reliability of our energy infrastructure to enhance our national energy security.

For more information on the Bush Administration's ongoing efforts to modernize the electric grid; enhance security and reliability of the energy infrastructure; and facilitate recovery from disruptions to energy supply, visit: www.oe.energy.gov <<http://www.oe.energy.gov/>>

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